

This Page Is Inserted by IFW Operations  
and is not a part of the Official Record

## **BEST AVAILABLE IMAGES**

Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images may include (but are not limited to):

- BLACK BORDERS
- TEXT CUT OFF AT TOP, BOTTOM OR SIDES
- FADED TEXT
- ILLEGIBLE TEXT
- SKEWED/SLANTED IMAGES
- COLORED PHOTOS
- BLACK OR VERY BLACK AND WHITE DARK PHOTOS
- GRAY SCALE DOCUMENTS

**IMAGES ARE BEST AVAILABLE COPY.**

**As rescanning documents *will not* correct images,  
please do not report the images to the  
Image Problem Mailbox.**

Fig. 1

10 30 50  
GTGAAGAACGAAAAACCTCTTGAAGAGCTTACGAGGCTTAGAGGAACCCACGAC  
M K N E K T F F E E L Y E A L E E E T H D  
70 90 110  
AACACCGATGCCACTAGGGGGTCAGATAGGGGGTCAGAGGACTCTTCTGGCCACCGAC  
N T D A T R G S D R G S E D F F L A T D  
130 150 170  
CCCCCTCCAGATGGAGGTGCCGAAAATGCCCTCGCGAAGGGCTTACATACCAAAAGAG  
P P P D G G A E N R L A K G F T Y Q K E  
190 210 230  
GCACTTAGGATTGCTTACCCGAGAAAGACCATGAGGCTTCCCTCTGTTGGGCC  
A L R I A L P E K D H E A F L S S V G A  
250 270 290  
CCCCCTATACCACCACTGAACCCCCCGTTGGAAATGTATGTCAAGCCGTCAGGACGGG  
P P I P P A E P P V G N V C Q A V Q D G  
310 330 350  
CCTCAGAAGCTCTGAACTCCCTCCAGGAGATTGCCGCTCCACCATCCCCAACGGCAAC  
P Q K L L E L L Q E I A R S T I P Y G N  
370 390 410  
CGGGAGCTCTGGAGGAAGGTGGGACGGTCGTCTCATGGTCCCCCTGGAGATGTTGCC  
R E L W R K V G T V V F M V P L E M L A  
430 450 470  
CTCAACCTGGGGTCACCCGGCAGACCGTCCACGCCTGGAAGAAGGTCTTGAGAAAAAG  
L N L G V T R Q T V H A W K K V L E K K  
490 510 530  
GGCCTGGTGGCCACCGACGTCTCACCAAACCGTCAACGGGAGCGCCGGCCATCGGC  
G L V A T D V L H Q T V N G E R R A I G  
550 570 590  
ACCCCTTGGCCGTCCGGCTGAGGCCAGGGAAAGCCAGGCTCACCTGGACGACTACATC  
T L W A V R L R P G K A R L T L D D Y I  
610 630 650  
TACCCCTGGAGGAACCTGCCCTAGACATGCCAACGGCGTGCTCTCCTCAACTGGTC  
Y P W R N L A L D M A N G V L S F N W V  
670 690 710  
AAGGCCTACCAAGGACCACGGAATCGCCCCACCCCTGGACGTGCTGGCTCTGGCTCAG  
K A Y Q D H G I R P T L D V L V L W A Q  
730 750 770  
GGGAAAAGGGTGTGCCAACACCAAGACCGTGGCGTTGACCTGGCCTCATCCTGGTC  
G K R V M P N T K T V A V D L G L I L V  
790 810 830  
CTCCCCGAGGTGGAGCGTTCAAACCTCCGGCCCTATCACCTCATGGTACGTACATT  
L P E V E R S K L P A L I T L I A T Y I  
850 870 890  
GCCGATCTCTAGATGACCGTCGTTCAAGACGTTCTATGCAGGCTGCTGTGGCTGTG  
A D L L D D R R S R R F Y A G L L W A V  
910 930 950  
GCCAGGGGTGAACCTCCCGCGCAATATCTATTGCCGTCTAATGCCGGTTATCCGAGAT  
A R G E L P A Q Y L F A V L M R V I R D  
970 990 1010  
TACACGGATGGCCATCTGACACGACCGGGAGCGTACCTAGTGAAGACCCCTCAAGGAGGCC  
Y T D G H L T R P G A Y L V K T L K E A  
TCCTGA  
S \*

Fig. 2

1 CTATAACGGCCTTTAGGAGGGGGATTGCCAGCCGCTGGGCTGACGGTTATTTGGACC  
61 CATAAAAAGGCGAAACCGAGGCGGTTGCCCGGATCACCCCAAGACCTAGGGTAACGCC  
121 TCGGGCTCCAGATGACAAGGAGGTCCGAGGGTGAAGAACGAAAAACCTCTTGAAGAG  
M K N E K T F F... (RepT)

Fig. 3

1 tctagaaggt cagggtggac aaggaaaaaca ccatagcccc tgccaagaag atggacgagt  
61 tgggtgtccgg aaaagtggcc atccggggcg ctcttgacaa ctatttcca gcggtggcca  
121 cccgcattgg ccacgaggtt cgagcttgc gtagtagacgg ccacaaagggg gtcgtctca  
181 aacttctttt ctatgtccgc ttggacgaag gggaggaaga gaaaaggctt catggctca  
241 cttccctccc ctcccttgc gggcccttag cggcgtaaaa ctctgagacg gcctgaagtt  
301 tagggatttc gtttccggg ataagaatcc ggcgctcag gggatgcgg atggccctt  
361 tcctgcccgc ctttatgtac tcgtaaatgg tggccttggg tactttaaac cgttctgaaa  
421 ctctctcaac agagagcaca aaacctctaa aaacctatca atcccacca ttccagtata  
481 ccataaatgg cacaatgtt tgagaagggtg gtcaacaaa aaggcttct cggtcaggtt  
541 atggtgaggt gggggcggc aaaggcccac ttaagttgg taaagccggg aggaagcaaa  
601 cccgggtgtt accatgcaac agatggccga gtggAACGTG tggacacaga gaagcgttga  
661 gcttctggag aagggttatt tggataaaact actgcaggc tataaaagggg aaagtggctc  
721 ttcgaggtca gtaccagagg aggttagagga aaaacttcgc gaggccatac aggacatacga  
781 ggggagggcag gatagtccgg aggccagaac gaaactcgtg gaagccgtc taaatgccag  
841 aaaaaaggtc gagcgggtccc cttcaatca cccctacctg ctttggct actacctgtt  
901 ttcggaaaaaa gcagaaaaaa cgaacaaggc ccttggaggag gcattgcagg aggttgcctc  
961 aaagcaccca gaaaccatcc gcgtccttgc caaggaagcg caaagaagag gcgtagaagc  
1021 cttgatccaa aggctcaagg agcctcccg aataaatccg cagataggc cgatgttcaa  
1081 aagggtgtac aaagaagagc taaagggaa aatagaagag aggcttccag gccttaccaa  
1141 accaaagatt gtggtagtat cccctgaaaa aagtaaaaccg gagcaagcac cccttattgc  
1201 ggagagagaa gcgggcatca tcatatacac gggatcggtt gaagcttga aagatgccgc  
1261 caaggaaaac ctgggccttgc gcgaggaagc agaacttaggc accaaggcg tagatttcta  
1321 cgtggtcata cggcgttagcc ctgaagagac atggcaccta acaggagaag tgaagttca  
1381 atccgacttt ggcggaaaacc aagacaacca gaaactagta gcaaaggctt ccataagggtt  
1441 gacctttag aagaggcaca taggaatagt ggtgggtggac ggaatgcctg tggtagcaa  
1501 gtttcgtggg tggggccggac tggggaaaga aacgatcggtt acatccgtac tcctccttcc  
1561 agacctgata gcgaggctt accaaaagggg tgaagaagcc ctgggccttctt agaaggcgga  
1621 cacaatctca aacttgtct gtaccccttgc gaaatccctt aacacccttc tagtgaaggc  
1681 tttgaccggc tcccaggagg catctatgc gatggatcgcc gctttaaga ggggtgaggc  
1741 tataagcgta gtaccggagc ctgcgaaggg atcgagcact aaatccccctt cgttactccc  
1801 tttttggacg atgagcttga gcatgtccag attttctcg gtgggtatc ggggtacgg  
1861 aggatccctt aactgcacaa cgtccctggag cttttttttc ttcttcaggc gatcccagac  
1921 gtaaaacttc ttccggcgc ccccgtttctt tgaccagaca ataagccctt gacgtcttag  
1981 ctcgtcaacg ttctccgggg gatagcgcca atgcgtcca ggagggggaa gtattcctcg  
2041 ccaaggccctt ccggtagggc catccttgc ttctccaggaa gcatgcagg gattgggttgt  
2101 gtaccgtttcc ccgttctcgat ctacaaaggg gaaaagccta gcatcttccctt ctccgaata  
2161 ggggctagcc gattcggtcc aaacgttagt ccgcgttttgc gatgtatc gatcatgtc  
2221 ctttgcgtt ccgaaggcc tacggaaaa gtttttggga tttgaagcga tgccggcgat  
2281 atggtaacg aagtttgcgc ggcggaaagac ctcataaggc atgagcttca cctcgaaccc  
2341 gtatttctcg tctatgtgaa cgaagatcag tcctgagtc gcatcagct ccctgagaag  
2401 tatcaagcgcc tccctcaggaa actccacaaa ctgaggacca tcgaggggtgt catcgtagcc  
2461 caactgaccc ttttgggtt ggcgtacggt agcaacgcga tctgtttcat cggccccaac  
2521 gagaaaactgc tggccgggtc cataaggcgg gtcataatag accaactggc cttcccccgc  
2581 atacccacca ggctcccgga gcatccaccg gagaacctga cgttttccc caaaaaaagta  
2641 ggtgccaata ggatcaatct caaaaagggg ggcatttccc cctaggaaga ggagggtttc  
2701 ttttcgcaaa acaagttgtg ggggtggctg atcaagaatc tccttcata cgcgtttcc  
2761 ggggtagacc aacctaaagg tacggctcat tcttccctcc ccacagcgt ctaagcagg  
2821 tcgggtcaaa ccagggtacg caccacccct caccactcc aaccaaggaa tccgccaaag gccccttacc  
2881 acctcatcac ccacaacccct ctgacgtata gacccctggc tcgtctcagg gtgcacccga  
2941 ttttgagccc gtatcttccc ctgacgtata gacccctggc tcgtctcagg gtgcacccga  
3001 aggatgtctg caagcttccgc gggggtcagg tacacggct tcataatccat gacacaaccc  
3061 taccacccacag aggacaaacac atgcaactat gggcaaaagta gacaacgaga caaaaagctt  
3121 gggccactct ctcaggaggtc ctcccttggg gtcataatcc ggtacgttcc cggtcgttgc  
3181 agatggccat ccgtgtatc tcggataacc cgcatttagga cggcaaaatag atattgcgc  
3241 gggagttcac ccctggccac agcccacagc aagcctgtat agaaacgttca tgaacgacgg  
3301 tcatcttagga gatcgcaat gtacgtatc atgaggggtga taagggccgg gatgttggaa

Fig. 3 (continued)

3361 cgctccaccc cggggaggac caggatgagg cccaggtcaa  
3421 ggcacacccc tttcccttg agcccagagg accagcacgt  
3481 tggctctggt aggccttgac ccagttgaag gagagcacgc  
3541 aggttctcc aggggtagat gtatgtcgtcc agggtgagcc  
3601 cggacggccc aaagggtgcc gatggcccg cgctccccgt  
3661 tcggtgccca ccaggccctt tttctcaagg accttctcc  
3721 gtgaccccca gttgagggc caacatctcc agggggacca  
3781 ttccctccaga gtcctcggtt gccgtagggg atggtgagc  
3841 tccagaagct tctgaggccc gtcctggacg gcttgacata  
3901 gctggtgta tagggggggc cccaaacagag gaaaggaaag  
3961 aaagcaatcc taagtgcctc tttttggtat gtaaagccct  
4021 cctccatctg gagggggtc ggtggccaag aagaagtct  
4081 ctatgtggcat cgggtttgtc gtgggtttcc tctaaagcct  
4141 gtttttctgt tcttacccct cggacctctt tgtcatctgg  
4201 gtcttggggg tgatccgggg caaccgcctc gtttgcct  
4261 cgtcagccca gggctggca atccccctc ctaaaaggcc  
4321 ggggttagta ctttcttacc cccctagct tggagaggcc  
4381 tcgtgggggt gttagggtaa cctcatgccc agggcggccg  
4441 cctccatagc ctactcgtagg tggaggttg tgaagggggt  
4501 ctcgggatca cggccaaatg gtatgcaggt tttgtataa  
4561 gtttatgtcg gtttatgtca ctttgcact ggatcacggg  
4621 acgaaagaaa acttcgcga tctaagaggg gaaagaggt  
4681 aaagttggcc tcttaggagg ccgtttaga gggccgtctc  
4741 tctctccagg tttccgaggt tcgagggtctt ggtccaggc  
4801 aagtctattc tcgaaatata ggggtatctt gtatcttc  
4861 gtgtgaacct gatcccatcc caatacatat ctaatctcc  
4921 atccctaaatc tctttctca cctttctc ctcccaatta  
4981 cgaccagaac gagcttctcg ggtcaggtt cgtaatctc  
5041 aggacgagga ttagggcatg aaaaatgggc tttgacaaa  
5101 cgaggttggg gaagtgcctt cggggagaag attttggca  
5161 cacggccgg aggctccac gataagttgt ctggccaag  
5221 gtccttcagc gtggtgatgg tacttcacg gaagttcaca  
5281 gtcggggata gtgtcaagt actcccaagc gttctcgcc  
5341 aaagggtcg ggcaaaagtt catctttaga cttaggacgg  
5401 cttcaggggcc gttaagaagg gcctcacctc ggagacgggt  
5451 gaagaagacg aaccccgatt tttgggaaayt ctcctccag  
5521 ggaagccgac caggatgtct ttcatcgcc ctcgaacctc  
5581 tgggtgtcag ggcaagagtg ctatgtatga ggtacaccc  
5641 gccccttcc ccaacgctcc aaaactctag ggtcaggtgg  
5701 ctatgttttc agtggcattt ctcacccct ctgcacgt  
5761 acacagccgc caagtctagc gtctcccaat ggtacccgt  
5821 ggggtttgtt gtagaggacc agaagaccc

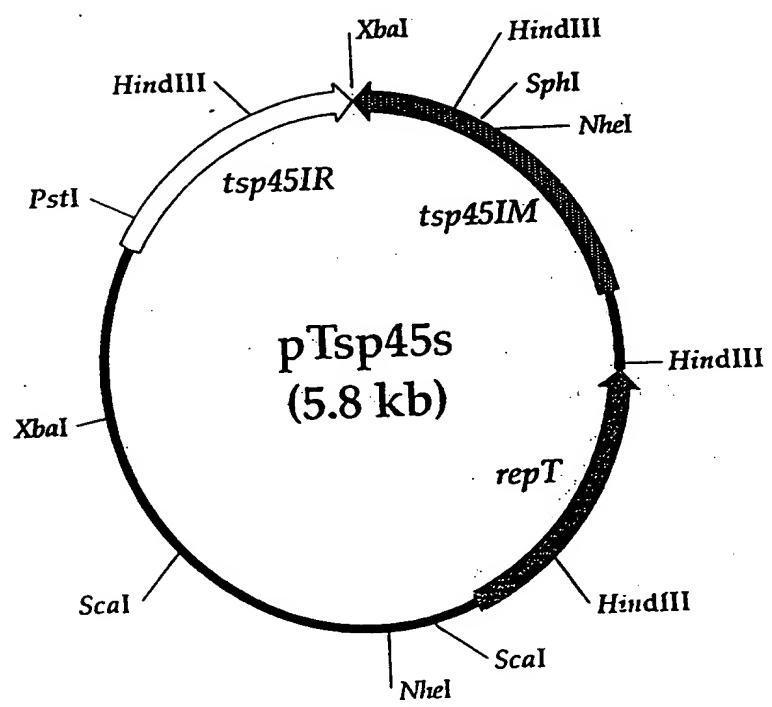


Fig. 4

Fig. 5

1 ATGATCGTGGCTGTCAACCGGCTTCAGGGAGGGTGGGAAGACCACCACGGCGGTCCAC  
M I V A V T G F K G G V G K T T T A V H  
61 CTGGCCTGCTTCCCTGGCGAGCGGGGCCCCACCCCTGCTGGTGGACGGGGACCCCAACCAC  
L A C F L A E R G P T L L V D G D P N R  
121 TCCGCCACGGGGTGGCACCGGAGGGAGGCCTCCCGGTGACCGTGGTGGACGAGCGGGTG  
S A T G W H R R G G L P V T V V D E R V  
181 GCGGCCCGGTACGCCCGGGAGCACGCCACGTGGTCATAGACACCCAGGCCGCCACG  
A A R Y A R E H A H V V I D T Q A R P T  
241 GAAGAGGACCTCCGGGCCCTGCCAAGGGGGTGGACCTGCTGGTCTGCCACGTCCCC  
E E D L R A L A K G V D L L V L P T S P  
301 GACGCCCTGGCCCTGGAGGCCCTCCCTGGCACCCCTGGAAGCCCTGCGGGGGCGGAGGCC  
D A L A L E A L L A T L E A L R G A E A  
361 CGCTTCCGGGTCCCTGACCATGGTGCCCCCGCCCCCGAGCCGGACGGGAGGAGGCC  
R F R V L L T M V P P P S R D G E E A  
421 CGGGCCCTCTGGGGCGGAGGGCGTTCCCTCTTCACAGGCTGGTGAGGCCGGCGCA  
R A L L G A E G V P L F T G W V R R A A  
481 GCCTTCCCCAAGGCCGCCCTCCTGGGGTGCCTGTACCGGGTGCCGACCCAGGGCG  
A F P K A A L L G V P V Y R V P D P R A  
541 AGGCTGGCTGGGGGACTACGCGCGGTGGGGAGAGACTCCTGAAGGAGGTGGGGGA  
R L A W G D Y A R V G E E L L K E V G G  
601 TGA 603

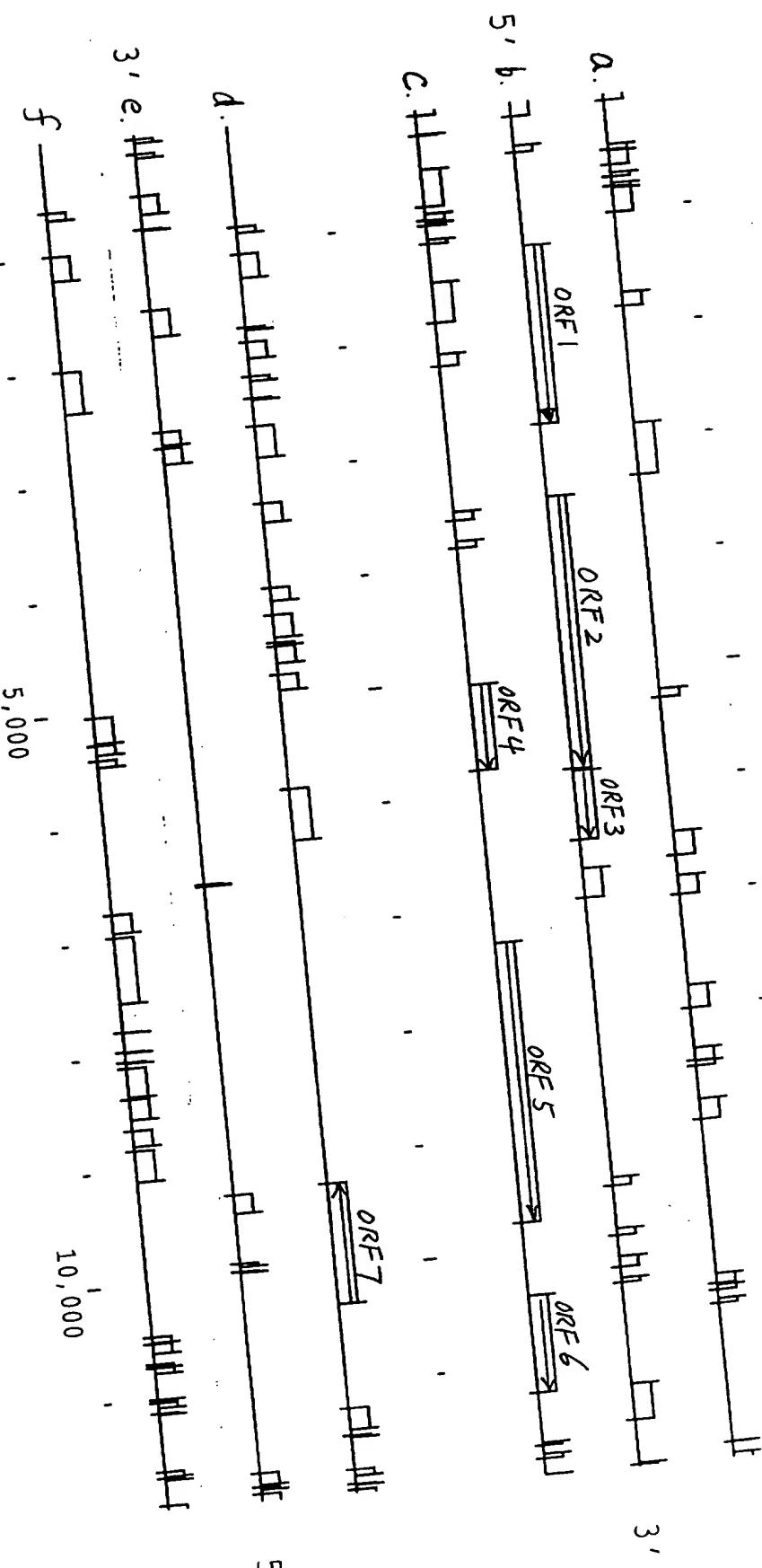


Fig. 6

Fig. 7

1	CTTATACACACAAACTATACACGTCTCTATCGGGCTTTCTTAGGCCATGTAAAACACC	60
61	CCTCCCATCTCCGGGTGTTACAGCGGATACGGGAGGTCAGGGGAACCTTCCCTTG	120
121	TTGAAACTTGGGTCTGAGGCTAACAGCAGAACAGCTTAGGTTGACTAACACAGCTC	180
181	ATAAGTCCCTCATTATGCGCTGAGTCACACCTATGAGTTAACCTTTCAAGAAAAAGA	240
241	GATAAGTGTAGTTTGTCCTCTAGCACGACTTTCTTGTAGTCAACCTCTGTGCCGACC	300
301	CCCCCGATTTGAGTCAACCCCCCTTGAGCGAAACTTGTGGCACAGGGGTTGACTC	360
361	AGGGGTGACTCAACCGGAATGGCTCTGGAAAGGGGTTGAGCGAACCCCTCCCTCGTGT	420
421	GGCGACCCCCCGCTTCACTATGAGCAGGGGGAAAGTTACGGAAAAGTTCCCCAAGTCCC	480
481	CCTTGACAAAAGATGACAATGAGTTAATGTCACAGCGATGCCACTCACCTCTGGCTG	540
541	GGCTCACCCAGATGCGTGCGGAACGTTTCAGAGCCTCCCTGGATTCTGGCCAGGGAGG	600
601	GGGGCTACCCCACTGGTGTAGAGCTGCCAAGGTGCTGGGGCGCAGCCGCCACGGT	660
661	GGGCCATGCTCAGGGCTTGACCCGTATGGACTGTTGAAACGGCACGAGGGGTTCTATG	720
721	TTCTGACCCCTGGGGCTAGAACCTTGCCAGGACCTGGAACCCACCGTGTGGGTGGGG	780
781	ATGAGGAGGTACAGACGGCTTACAGCTGCTAGGAGTGGTATGCCGCGAGGACAGGC	840
841	GCTGAAGCTTGAGCCCCGGGCGCTCACCAAGGCCACCCCGCTCCTCTCCCCCTGGGAT	900
901	CCCAAATGGATCCCTCAGGCCATATCCTCTGGGGCTCATAGCGCAAGGAGGTAGT	960
961	GGTACGAAACACAAATGTTCACCCACCTTGGATGCCGTAGAGGAGCTCGCTCG	1020
1021	CCAGATTGCTGAAACCGCTAACAGGCTTATCCAGOCATTTCAAGGAGATTGTCAAAGT	1080
1081	CCTGCCGCGCTGAGGTTCCCGACCTCTACGCCCTGGCTGGCGGCCCTGGATGACTCGGCAT	1140
1141	CGAGGAGCTTGGCCAGGCCCTGAGGGAGGTGGAGGGAGGCCCGGCCCTTCACCGC	1200
1201	CGCCCTCAAAAGGCCCTGGCCATGCCCTACAGCGGCGGCCCTGCCGAGATGCCCG	1260
1261	CAOGTTGOCACCGCTCCGCTGGGCGATGCCAACGGCAAGGGGTGAGGCATCCGCAAGCT	1320
1321	TGGGAGAGAGGTAGGGCTAGCAAAACACTGTTAAAAGTGGGTGGAGGCCGCTTGT	1380
1381	CCCTCGGGACGACTACCCCGCTGGGGTTGCCAAAAATATTGGAAGGTGTGGGGAA	1440
1441	CCTTCGGGACGACTACCCCGCTGGGGTTGCCAAAAATATTGGAAGGTGTGGGGAA	1500
1501	AGATGCCCTTATCCGGGTCTACGCCGACCTCTGCCGTGGCCGCCCTGGCGCGCTA	1560
1561	CGGCCGCCCTGGGATGATCTCTCCCGACGAACAGGAGGCCCTGGCGCGAGGACGA	1620
1621	AGACCGGTGGACCGCCTCTCCAAACCGCCAGAACGGAGTGGAAAGGCCAGTCAAAACC	1680
1681	TTTCGGCTTCCCTTGAGGAGTGGCCAATGAGGCTGCCAAAGAATGGGAGGACTACGA	1740
1741	GGCTATGCCCTCATGGCACCTGGGAGCATTGGCGCGTGCAGGGGGCGCTGGGGGCG	1800
1801	ACCTCTCGCTCCCACGACCGTGGGACGGAAACGCTCGAGCGTGAACGGGAACTTATAGA	1860

Fig. 7 (continued)

1861	ACTGTTCTACGGCTACTGTGAAACGAACGGGGCTCGACAGCAACGGTTGAGCCTCGC	1920
1921	CCTCCTCACAGACCTGGAGCTCGTCCAATGTTACCTGGAGTGGCGGTGAATAGGTACAA	1980
1981	GGACGAGGATTACCCCCCGTTACTCGATCGGAATACATGTTATCGCCCTGGTGAAGAAA	2040
2041	ACTCCACAGAGGTTATCTCCCGCCCTTGGCTTGGGTAGACCOGGACGGGTGAAAGA	2100
2101	GCTGGAACGAAACTGAAATCGCGGAATTGATGTCACGGACGGCTACCGCGGTGGA	2160
2161	GCCCTCTGGAAACTCACGAGCCCCCTCCGCTGGGTGCTGGATGGCATCCGGCTATGCT	2220
2221	CCCGCGATGCCGGGGGGGGTAGGCAACCTGCTGACACCCAAATCCCCACCGCCAAAAG	2280
2281	CGAAGCGGGCGAAGCGTCGCCCTCACCGGGACGTCGGTCTGCTTGGATGATGGTGGG	2340
2341	CCACCCCTCGGGCGAACGATTACTACGAAGCTCGCTTGGACATGAGCCAGTCCAAAGA	2400
2401	CGGGGATTTCGTCACGGTCCCCCTGGACGGACCCCGAGCACCCCTGCTCTGGACGTGAA	2460
2461	CTACCGCAAAGTGGAGTTCAAAACGCCCCAGGCCAGGTCTTCAAGACCTCCAGGACCA	2520
2521	CGATCTCGTCACGTTCCCCCTGGACGGACCCCGAGCACCCCTGCTCTGGACGTGAA	2580
2581	CGGGATGGGTACTCCCTCACCGAGCTCTTACGTCTACCTGGCACGATCCTCTCCCG	2640
2641	CCTGGCCCAGGCCCTGGCCGGACCGGTCCTCTGCCCTGTTTCCGGTGCCGATAACG	2700
2701	AGGCTCAGACTTGCGCACATGTTGGCAGGGCGCGCGCTAACGTGGCGCGGTGCCCCGG	2760
2761	GTACCCCAGAAACTTTTGCCCTTGGCCCCACTCCATCGGCCACGTGGTGGCCACGGAG	2820
2821	GTGCTGAAGOGCACGGGCTCTTGTAGGGCGGCCAACGTCGCTCTGGATAGCATAGAC	2880
2881	ATGGTGTGTCGACATTACGCCCGTTCGTTCCCCGCGACCGTAACAGTCACGGTTGGGG	2940
2941	CTAACGCCCGGCCCGGGGGAGGTGAGGCGTGGGGACCTAACGACTTTTCTGGCGCG	3000
3001	GGTGGACGAACGGTGCGGAACCTCTAACCGGGCGGGGCGGGGGGGGGGAGAGGTGGCG	3060
3061	GGGGGGCTGGTCCAGGGCGAGCGGGGGGACAGCTGGCGTGGACCGGGGAAGGGCTT	3120
3121	CTGGTGTGCGACACAAACCCCTCGGCCCCCGAGCCCCGGCAGGGAAACCTCTCACGCTGAT	3180
3181	CCAGGGCGCCAAAGGGCTCTCCCCCGAGGGAGGGCGCTGGGCCAGCAGTGGCTTGG	3240
3241	CCTCTCCCCCTCGCCAAGGGTCAGGGGACGAGGAGCTCAGGACCAAAGGTCTTGAGTAC	3300
3301	TCAAGTGGTGGAGCTGGGTGCTCCAGTCCCTGAGTCCTCAGGTTCGGCAGGTACCTGA	3360
3361	GGAGTGGACCCCTTGACAACCCCCCGCTTCCGGGACCTCTCACCCCCAGGGCGAGGA	3420
3421	CGAGGGCCCCCTTGGCCCCGGCCTCCGAGGGAGGTGCTGGCGCGATGGTGTCTAGGCTTCT	3480
3481	CCGCACCCCCGAGGCCGTGGCCTACCTGAAGGGGGCGGGCTGGATGCCCGGGTGGCG	3540
3541	CCGCTTCTACCTCGGCTGGACGACCGCGCGGGCCACCGCCGCCCTGGTCTACCCGGT	3600
3601	GATAGGGCGGACGGCTCCCCCGTTGCGCGCCACCTCTACTACGAGATCCCCGGCCTCAC	3660
3661	CCAGGGCGCCCCGGCAAGGGCTGGGGAGGGGAGGCCACAGCTACTGGGCCCTCCCC	3720

Fig. 7 (continued)

3721	CCCCCTTCGAGGGCCCCCTCCCCCCCAGCGCAAGCTCTCTTGTGCGAGGGGGCGAAGGATGC	3780
3781	CTGGGGCCCCCTCTGGCTCCACCTOCACGCCAGCCCTGGGCCAGGACCTGGGGGTGGTGAC	3840
3841	CTCCAOGCAACGGCTCCGCCCTCCCCGAGGCCCTGGAAAGACCCCCCTGTTCTGGGCCCTTG	3900
3901	GGAGGAGGTCTACCTGGGCCAGGAAGGACTCCGCGGGAGGAGATGGGGGGAAAGGT	3960
3961	GGCGGAGGTGGCGAGGGGGCCGGTCCCCCGGGTCCCCGGAGGGGATGGGGAAAGGA	4020
4021	CTGGACGGACTACTTCTGGGGGGGACCCCCGAGGGCTTGCGCCTCTCTGGAGGG	4080
4081	AGCGGAGGTCTGGGAGAAGAAGTGGCTGGAGGTGGGCCAGGATCCAGCTCCGGACCC	4140
4141	CGTGGACATCCAGCGGCCCTTGAGGGGCCACCTCTACGTCCCCGTGGGGTCTCTGGA	4200
4201	GAACCGGGGGGAAGAAGGGGCCGCTACCGCACCGTGGTGGTCCCCCTCGACGGGGCGGT	4260
4261	CCTGGGCTGGGCTACTTGGCGGCCCGGGGAGGAGGACGGGTGGCTGGC	4320
4321	CGTGGACGAOGGCACCATCATCCGCAGGGGGGGAGAGGGGGCGCGCGGGGACCTCGTGAA	4380
4381	GGGGGAGGCCATCAACGGCTCTGGAAAGGCCCCGGGGAGTGGAGCCATGACCGT	4440
4441	GGCCCCCGGGACCTGCGCTGGCTCATOGTCCGCCACCTCGGCCAGGTGATCCTCCOCAG	4500
4501	TGAGGACGGCTACCTCTGGCGGCCCTAGGGGTCACTGACCTCTACGTGAGCGCTTT	4560
4561	CGACGCCGTGGCCCTCTTCTCGTGGTGGGCCCGGGCTGGGAAGACGGAGTTGCG	4620
4621	CGGCCCTATGGCGAGCTGGGGCAACGGGCTGGTGTACCGGOCAGACCTCCGCCGC	4680
4681	CACOGCCGCCGGATCATOGACGAGACGGGGGGCTGGTGGCCCTOGACGGACCTGGAGGA	4740
4741	GGTGCGCCAGCGGTGGGGAGGCTGGGCTCCAGCTGGAGCAGTCTCAAGGTGTC	4800
4801	CTACAAGAAGGAGACCGGGCTAACAGCTGGGAOGGACACCAAGGGATGCCGTCTCAC	4860
4861	CCTCAACTCTCGGGGTCAAGGTGATCACCAACACCCAGGGACGGGGACATCTGGG	4920
4921	GAGCGGGATGCTGGTCATCCGCACGGGGGCCCTGGGACCTGGCAGAGGGGAGGAGCG	4980
4981	CGGCCCCGAGGGCTCTCCCCCCCCCAGGCCCTCAAGAAACTCCGGACAAACCTCTACATCT	5040
5041	GGGCCATGGAGAACGGGCCAGGCTCCACGCCCTGTACCGGGCTTGCGGGCAAGG	5100
5101	GGGAGOGCTGGACGAGATCGCGGCCGGCCCTTGCGTACCATCGGCCACCACTGGGGAGC	5160
5161	AGGAGCTGGCGGCCGCCCTGGAGGACGCCCTGGCGGGCAGGAAGGGCGCTGGAGGAGA	5220
5221	CCCTTTCGATGCCAGGTGGTGGAGACGCCCTCAAGGAGGCCATCCGCCAGGGCTACC	5280
5281	GGAGCCACGTGGCCCTGGTCCACGTGATCTCCAGGCCCGGAAGATCTGGGGACGACT	5340
5341	GGGGCCGGGAGGCCACCGTGGACATCCCCGGTGGCGGGACCCCAAGTGGGTGGGGCAGA	5400
5401	TCGCCAGCAACTACGGCTGGGCCCGAGAAAGGCCGTGAGGCCGGCTGGGAC	5460
5461	AGCAGTCCGCATCATGCCCTGGAGGCCACCTCTCGTGGAGGCCGGTGGTCAGGGGCTTCC	5520
5521	TCCAGGAGGGATCCCCCTGGAGGCCCTGAAGCAACCCCTGGCTCTGGCTGGACACCC	5580

Fig. 7 (continued)

5581	CTGGCGCGAGTGCCTACCTGCACTGGTGCACCTCGGCTGACAAGGAAAAGTGGCT	5640
5641	GGAGCGCTACGGGAGGCCAAGCTGGCCAGAAAAGGAGGGAGCTGGAGGAGGAGTTTT	5700
5701	GGCCCTGGTGGGGCCCAAGATGGCCTGGCCTCCAGGCTTCGCCAGGGAGGAGGAGGAGA	5760
5761	CCGAGGTAAGCACCCAAAGTACCCAAGTACCCAAGACCCCTAAAGCCTCAGGTACCGGAGGA	5820
5821	CCTCGGGGACGGAGGACCTAAAACCCCAAGGGCGTGAAAGACTGAGGTGAGAGGGATGAT	5880
5881	CGTGGCTGTACCGCTTCAAGGGAGGGTGGGGAAAGACCAACACGGGGTCCACCTGGC	5940
5941	CTGCTTCCCTGGCGAGGGGGGGCCCCACCCCTGCTGGTGGACGGGGACCCAAACGGCTCCGC	6000
6001	CACGGGGTGGCAACGGAGGGAGGCGTCCCGGTGACCGTGGTGGACGGAGGGTGGCGGC	6060
6061	CGGGTACCCCCGGGAGCACCCACGTGGTCATAGACACCCAGGCGCGCGCGAOGGAAGA	6120
6121	GGAACTCCGGGCGCTCGCCAAAGGGGGTGGACCTGGCTGGTCCCTGCGAACGTCGGGGGAGCG	6180
6181	CCTGGCCCTGGAGGGCGCTCGCCACCCCTGGAAAGCCCTGCGGGGGGGGGGGAGGGCGCTT	6240
6241	CGGGTCCCTGGACCATGGTGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGG	6300
6301	CCTCTTGGGGGGGGAGGGGTTCCTCTTCACAGGCTGGGTGAGGGGGGGGGCGAGCCTT	6360
6361	CCCCAAGGCGCCCTCGGGGTGCCTGCTACCGGGTGGCGACCCACGGCGAGGCT	6420
6421	GGCTGGGGGGAGCTACGGCGGGGGTGGGGGAAGAGCTCCCTGAAGGAGGTGGGGGGATGAGC	6480
6481	AAGTTGCCAGGCTCCTCAAAGAGGTCAAGGAGAAGGAGGAGGAGGCGCTCGGGAGCGCCT	6540
6541	CGGGGAAGACGGGGGGGGAGGACTACCTGGCATGAAGGTCTACATCAGCAAAGAGCTT	6600
6601	CACCGGAGGCTGAAGCTGAAGGGCGCTGGAGGAGGAGAAGGAGCTTGGAGCTGGTGGAA	6660
6661	GAGGCGCTGAGGAAGTGTGGTGTGACCTCCCTCCCGCTCGTAGAGCGTGAAAAGGAGG	6720
6721	TAAGACGATGGTCACCTTAACAAATCGCCCTAGAACGCCCTCTACGGGGCGACTCCCC	6780
6781	CCAGGAGGGGGCGCTCTCGAAGGCCCTGGTCCGCAAGATAATTGAAGGAACCTCCACC	6840
6841	CCATCTGGAGCCAAGAGTTGGATGTCGTCCCTGGTCCGAGCAGCCACCGCAAGG	6900
6901	GGCTCAGGCCACGGACATCGGCGTGGACCTGGTGGCTACGGGAAGGACGACAAGGCT	6960
6961	ACGCCATCCAGGTCAAGCTGGGATAAGGCCCTCTCTGGAGGACCTGGGAGCTCG	7020
7021	TGGGGTGGTGAACCACCCCGAGTACGGCTCGACCAAGGGCTCATCGTGGCCCAAGAG	7080
7081	GGGTGACCCAGGAGGGCGACCGCCAGCTCCAGGGCTACCCATCACCATCCTGAGCGAAG	7140
7141	AGGCTCTCTAGAAGACCTGGACCTGGAATCCCTCGTCCAGACGGCCCCGAGGAAGGCC	7200
7201	GCAGGGGGGAAGAAGGCCCTCCGTAAGTACCAAGCAAGAACGCTTAGAGGAGGTGGCCA	7260
7261	AAGCCTTCTTAAAGAGAAGGGCTCGCCCGGGCAAGCTCATCGCCCCGGCGAGGGCTCT	7320
7321	AGACCCCTGGTGGCCCTCAAGATCGCCAAAAGGTGGGGGGGGGGAGGGCTCT	7380
7381	TCCCTGGCGCCCTCCATCGCCCTCTGGACCGAGTCCTCAGGGCTGGGGGGAGGCTT	7440

Fig. 7 (continued)

7441	CCTTGCCCTTGGCGCTCTTCCCGTGGCTCGGACACGGGCGTGGCAAGACCTGGAGG	7500
7501	ACGACCTCTCCGCCCTCCCTCCATCCATCCCTACCAAGCCCTGAGGAGCTGG	7560
7561	CCTCCGAGGCAAGACGGAGAGTCAGGAGGCCCTACCGTGGCTCTCCACCTACCAAGT	7620
7621	CGGCGGAGGTCTGGAGAGGGGCCAGAAGGAGCAOGGCTTCCCCCTTTGACCTGATGA	7680
7681	TCCTGGACGAAGCCACCGCACGCCACGGTGGGGGGAGAAGAAAGCCCTCACCA	7740
7741	AGGTGCACCAAGGACCAACTACGTGAAGGCCGCCACGGCTCTACATGAOGGCCACGCCA	7800
7801	GGATCTGGGAGGTGGAGGGAAATGGAGAGAGGGGACAAGGAAAAAGGCGGGAAAAAGA	7860
7861	AGGACCCCTCAGAAAGAGGGTCTCCCTCCCTTTGGACCTGGTGCCTCTACGGAGG	7920
7921	ACTCCACGGCCCCCGAAGGGTGGAACTCTGGTCTACTCCATGGACAACGAGGGATCT	7980
7981	ATGGCCCCACCCCTACGAGTACACCTCACCGGCGCGTGAAGGAGGGGCCACCTGAGCG	8040
8041	ACTACAAGGTCACTGCTCTCCCGTGGGGAGGAAGGCCAAAAGGACCTGGCTCCCTACC	8100
8101	TCCAGGGACCGAGGCCCTCAAGGTGGAGGGCTCTGAAGGCCCTGGGCTGTGGAAGG	8160
8161	TCCCTCAGGGGAGGTGGGGACAGGAGGGGAAACCCGATGGGGGCGCTGACCTGGGA	8220
8221	GAGTCATCGCTTCCACGGCGGGTGAAGGAGTCAAGGAGATGGAGGAAGAGTTCACGA	8280
8281	AGGTGGCCCTCGCTGCCACAGGCTGGCTCCCTCCCGAGGAGCTCGGGGGGTGGAGG	8340
8341	TGAAGCACATAGAOGGGCAGATGTCCGCTATGACCGGAAGGCGCTCCGGACTGGCTTA	8400
8401	GGGAGAACGTCGGGGAGGGGAGGTGGCGCTCGTACCAACGCGAACGGCTCTACCGAGG	8460
8461	GGATGACGTCCGGCCCTAGATGCCGTGGCTTCATGCCGTCCCCGGGACAGCGTGGTGG	8520
8521	ACGTGATCCAGGCGTGGGGCGGCCATGCGCAAGGCCCCGGCAAGGAGTACGGGTACG	8580
8581	TGGTCTTGGCGTGGTGGTGAAGGGGGAGGACGGAGGAGGGAGATCGAGGAGAGGGCT	8640
8641	ACCGGGCGGTGGCAGGTCTCGGCTTGCGTGGGACAAGTCCCTCGAGGCC	8700
8701	GCA1GOGOGCCCCCTGGTGGCTCTCGGTAAGGGCGAGGGCGGGGAAGGTGGAGAGG	8760
8761	CCCGAGAGGGTGTGGCGTCATCGGGGAAGGAAGGCCCTCCCCCGTGATCGTAGATGTCC	8820
8821	TTCAGGGGAACCTCAACCTCCACCAAGGAGATCACCGGAGGCCCTGGGGCAAGCTGGTCA	8880
8881	GGCGCCTCGCCCTGGGCGGAAGTACCTGGAGAACTGGGCCAGGACGTGGGGGGTGG	8940
8941	CGAAGGTGTGGAGCAGCAGGTCAAGGGGATGGCGGAGCGGGACCCAAAGGTGAAGGAAA	9000
9001	AACTGGGAAACTCCCTGCCGCCCTGCAGGCCCTACCAAGCGAGAGCGTACGGAGGACG	9060
9061	AAGCCATCCCTCATGCTGGTCCAGCACGGCTCACCAAGCCCATCTCGACGCCCTTTCG	9120
9121	GGGAACCTCTAGAAAAGCGGGAGGACCCGTTCCCGGGCCCTAGACGAACCTTCCAGG	9180
9181	AGTCAGGGGGTCTCGGACCGGGAAAGGGAGGCCCTCAAGGATTCTACGAAGAGATGC	9240
9241	GCCTCAAGGCCCTAGGGCTACGGACGAAGGCCAAAGGGCCGACTTCCCTACGGAGGCTCT	9300

Fig. 7 (continued)

9301	ACTCCAACTTCTTGGCCGGGCTTCCCCAGGTGGCGACCCAGGGGGATCGCTACA	9360
9361	CCCCGGTGGAGCTGGTGGACTTCCCTGGTGAAGAGGCGCAGCAGAGCTGGCCAGGAAGCACT	9420
9421	gTTGGCCGGGGCTCGATGGGAGAAGGTCTTCATCCCTGGAGCCCTTCGCCGCAACAGGC	9480
9481	ACCTTGGTCAACCGAATCTGCACCGGTAGCCGAAAAGGGGGGGCGACGGGTCAAG	9540
9541	GGCAAGCTGGAGGGGGGGAGATCTGGCCAACGAGATCCCTCTCCCTACTACCGTC	9600
9601	CTCAGGGCCAACGTGGAGAACACCACCTGGCCCTGACGGGGAGTACGTCCCCCTCAAG	9660
9661	GGGGCGTTCTGGGGACTCTTGGCTGGGAGCTGGGGTATACGAGAAAAAGTTGG	9720
9721	CATCATCCCGCTCTCCCCGAGAACATACGGTGAGGCCCTGAACGAGCAGCTGAAGGCC	9780
9781	TATCCAGGTTATCTCTCCAACCCCCCGTGGCTGGTGGAGAAGGGGGCGAGGGG	9840
9841	AAGAAGAACCCCGTCTACCGTAAGGTGGGAGCGGGTGGAGCCAACCTATGTACGGCG	9900
9901	GCCAAGGAACCTCCATCGGGGGGACAAAACCCAAGGGAGAGAACCTGAACCTCCCTCTAC	9960
9961	GACCAAGTACATCCAGGCTTGGGGTGGCAGCGACCGTATGGGGAGGGGGCGT	10020
10021	GCCCTGGTCAACCAACAACGGTGCGTGGGGGCGTGGAGCCCTGGGGGCTTGGGGGCTCT	10080
10081	TTGGCGGAGGAGTTCGGGGAGGTGTACGCTACGACCTGAGGGGGATGGAGGGAGAAG	10140
10141	GGGGAGGCACGGAAGAAGGAGGGGGGGGGCTTGGACAGCCCTCCCGCGCGGGGGC	10200
10201	TGCTCTCTCTCTGGTGAAGCGTAAGGACCAAAGGGATGGCAAGGTCCACCTCTAT	10260
10261	CGGGTGGGGACGGGCTCTCCGGGAGGCCAACGCTGGCTCTGGTAAGGAGCATGGCTCA	10320
10321	GTCTCTGGGTCCCTGGCAAGAGGTCCCTATGAAGAGTGGGTGGGGAGGCTTACCCCCG	10380
10381	GGTTCTGGGGATGGTGTCCCTGGACGGAGGTCTTGAGGTGGAGGAGTTCTGGGTGAAGA	10440
10441	CCAACCGCGATGCCCTACGCTTCAACCCCTCCGGGGCGAGCTGGAGCGCACATGAGGC	10500
10501	GGCTCATCTCCACCTACAACGAGCACGTAAAAGGAAAAAGAGGGGAAACTAGGGGAAC	10560
10561	TGGAAAAGGATGAGAGCATCATCAAGTGGGATAGGAACTCATCAGGTACCTAGAGTC	10620
10621	TGAGGGAAGCTTCTACGAAGGGAGCGGTCAAGTCTACGAGGCCCTCTACGCCCTTCG	10680
10681	TGCCTATGTAACCTCTACCTCAGCGCACTTCAATAGCATGATTACCAAATCCCCCGCA	10740
10741	TCTGGCCCACCCCCGGAGGCCAGAACCTGGCCATGCCGTGGCGGAAAGGGAGTAACG	10800
10801	CTTTTACCGCTGTGGCACCCAGGAGGGTGGTGAACCTGCACTTATTGAGACCAACCCAGC	10860
10861	TCTACCCCCCTTACCACTACCCCGAAAACAGCCCTCTGGGGGACACCCAAAGCGCAAGC	10920
10921	TCAACCTCAAGGAGGAGTCTTGAGGAAGCTGGGGAGGTCTCGGGCCGGGGCTTCCCC	10980
10981	CCGAGGAGGCCCTGGCTTACATCTACGCCGTGGTGAAGCCACCCCTCTACGCCGAGCGCT	11040
11041	TCGCCAAGGACCTCAAGATGGACCTCCCCCGCATCCCCCTCCCCCAAGATCCGAACCT	11100
11101	TTGCCAGGCTGGTGAAGGCCGGTCAAGAACTCATTCACCTCCACACCGAGTACGAGACCC	11160

Fig. 7 (continued)

11161	TGCCCCCTGGAGCCCAGTCCCCCTTCGGGTGGAAGAGGGAGGCCCGAGGACCCCTACGA	11220
11221	GCGCTACCGGGTGGAGGGATGAGGCTGGACAAGGAGAGGAGGGTTCTCCAGTACAACGA	11280
11281	CTGGGTCCGGGTGGAGGGATCCCCGAGGAGGCCCTTCGGCTGGCGGCCGGGGGTACTC	11340
11341	CCCCCTGGAGTGGATTGGCGCTTCTGGAAGGTGGAGGAGAAGGTGCCAAGGGCAGGGG	11400
11401	GGAGGCCATCGTCGGGACCCCCAACCTCTTCCCTCAAGGAGAAGGGGAACCCCGTTACCT	11460
11461	CCTGGACCTCATGGGGGGGGTCCAGGTGGCGTGCAGACGGTTGGGATCACGAGGA	11520
11521	GCTGAGAGAAGACGTGGAGCTCTGGCTGGGTGAGGGGGTGCTGGGGGCGGGTTCTCCCT	11580
11581	ACTCCCTTAAAGGGCTACCCCTACGATCAAGCACGGCCCTGGGGGGCGCTCAGGTGGCA	11640
11641	TOCCACGTCCAAGGCCCCGACTGGCACCCCATGCTGGAACTTACAGGCCAAGGGCCT	11700
11701	GAAACATTCCCCCTGCTCACGGGGAAAGTTGTAAGGAAAGAGCAAAGCTTTTTA	11760
11761	TOGCATCGGAGAGATGGGGGTGGAACTTTCCCCGAGGACTCCCCCATAGGGACATG	11820
11821	TAAACGGCAAGCTATCAGTGTAGACTTTTCAAAAAGAGCCATACCTGTTGTTTCCGT	11880
11881	TCAGAACGGCATTTTGTAAAGGAGGTGGTTACAAAATGGTGTAAATGCGCTACATCCT	11940
11941	CGGGTAGTAGGAGCATGC	11958

卷之三